Ecological Reference Worksheet

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Indicators. For each indicator, describe the potential for the site. Where possible, (1) use numbers, (2) include expected range of values for above- and below-average years, when appropriate & (3) cite data. Continue descriptions on separate sheet.

1. Number and extent of rills: None expected on slopes less than 5%, although slight occurrence on slopes greater than 5% which are few and short that increase in frequency, depth, and length with an increase in slope. Typically more evident following high intense rainfall events, thereafter eroding with time and climate changes becoming less evident.

2. Presence of water flow patterns: Uncommon; probably cover no more than 5% of area; very short and discontinuous, 1-3 feet in length;

3. Number and height of erosional pedestals or terracettes: None expected. Average slopes are less than 5% and generally not conducive to forming pedestals and terracettes. More evident with increase in slope.

4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are *not* bare ground): Bare ground in respect to canopy cover ranges from 15 to 30%. Bare ground in respect to ground cover is estimated at 53% (ESD data). Considerations: climatic conditions, past management, invasive plants.

5. Number of gullies and erosion associated with gullies: None present on this site.

6. Extent of wind scoured, blowouts and/or depositional areas: None present on this site. The hazard for soil blowing depends on the texture of the surface soil, ranges from slight to high.

7. Amount of litter movement (describe size and distance expected to travel): Generally all litter size classes staying in place. Although on slopes >5% small sizes transported in flow paths, occasionally forming litter terracettes.

8. Soil surface (top few mm) resistance to erosion (stability values are averages – most sites will show a range of values): Soil stability test: expect values of 4's to 6's across site. Moderate hazard to water erosion.

9. Soil surface structure and SOM content (include type and strength of structure, and A-horizon color and thickness): Medium textured loams, fine sandy loams, and very fine sandy loams, which may contain gravels.

Typical A-horizon Datil series soil 0 to 3 inches; brown (7.5YR 4/2) fine sandy loam, dark brown (7.5YR3/2) when moist; weak fine granular structure.

10. Effect of plant community composition (relative proportion of different functional groups) & spatial distribution on infiltration & runoff:
Plant community cover (distribution and amount) is reflective of the historic plant community. It is a grassland site characterized by a mixture of warm and cool season grasses. Desirable shrubs include four wing saltbush and winter fat.

Sod bound blue grama is an indication of a change in plant community which is indicative of hydrological change.

11. Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): There should be None present on this site.

12. Functional/Structural Groups (list in order of descending dominance by above-ground weight using symbols: >>, >, = to indicate much greater than, greater than, and equal to): Perennial mid grasses >> short grasses > shrubs > perennial forbs = annual forbs > annual grasses

13. Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): These two indicators are expected at low levels due to climatic variations and disturbance regimes. Perennial grasses and shrubs that are ageing will demonstrate these indicators.

14. Average percent litter cover (16 %) and depth (0.8 inches). ESD data

15. Expected annual production (this is TOTAL above-ground production, not just forage production): 375 lbs/acre unfavorable precipitation; 663 lbs/acre normal precipitation; 950 lbs/acre favorable precipitation.

16. Potential invasive (including noxious) species (native and non-native). List species which characterize degraded states and which, after a threshold is crossed, "can, and often do, continue to increase regardless of the management of the site and may eventually dominate the site": Ring muhly, threeawns, sand dropseed, Pinyon, Juniper, and Rabbitbrush

17. Perennial plant reproductive capability: Not affected even following several years of prolonged drought period for region.